

USSR/Human and Animal Physiology. Metabolism. Nutrition.

T-2

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55236.

Author : Braunsteyn, A. Ye.

Inst :

Title : The Significance of Aminoacids in Nutrition and in
Metabolism Control.

Orig Pub: Vopr. Pitaniya, 1957, 16, No 5, 18-30.
A Survey. Bibliography, 35 references.

Abstract: No abstract.

Card : 1/1

BRAUNSHTEYN, A.Ye.; AZARKH, R.M.

Effect of the depression of transamination on amine acid synthesis in microscopic sections and homogenous extracts of the liver [with summary in English]. Biokhimiia 22 no.1/2:430-438 Ja-F '57.

(MLRA 10:7)

1. Laboratoriya obmena azotistykh soedineniy Instituta biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR. Moskva.

(AMINO ACIDS, metabolism,

liver, eff. of depression of transamination on synthesis in slices & homogenates (Rus))

(LIVER, metabolism,

amino acids synthesis, eff. of depression of transamination in slices & homogenates (Rus))

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BRAUNSHTEYN, A. Ye.

"Some Aspects of the Chemical Integration of Nitrogen Metabolism."

Paper presented at International Kongress for Biochemistry, ^{Vienna}Wien, 1 - 6 Sep 58.

BRAUNSHTEYN, A. Ye.

The following papers were presented at the Annual Meeting of the German Chemical Society in Leipzig, 28 October - 1 November 1958:

BALANDIN, A. A. (AS USSR, Moscow)
"Toward the Construction of a Unified Theory of Catalysis - Structure and Energy Factors."

DORUSKOV, G. K. (Physico-Chemical Inst. in Karpov, Moscow)
"Reciprocal Influence of Reagent Systems and Catalysts."

~~BRAUNSHTEYN, A. Ye. (Inst. of Biological and Medical Chemistry, AMB, USSR, Moscow)~~
~~"General Questions of Biological Catalysis in the Light of the Activity of the Pyridoxalenzyme."~~

EMANUEL, E. (Inst. Chemical Physics, AS USSR, Moscow)
"Homogeneous Catalysis and Chemical Induction in Slow Oxidation - Chain Reaction."

RODINSKIY, S. Z.
"Mechanism and Kinetics of the Half-Life Catalyst."

SHILOV, E. and YASHNIKOV, A. (Inst. Organic Chemistry, AS Ukrainian SSR)
"Mechanism of Catalytic Action of Aminoacids in the Reaction of Carbonyl Compounds."

VILESOV, P. and TIKHOMIN, A. (Physics Inst., Leningrad State University)
"Photoelectronic Emission on the Surface of Half-Life Catalysts."

SO: Chemische Technik, October 1958, Uncl.

BRUNSHTEYN, A.Ye., VILENKINA, G.Ya.

Chromatographic determination of 4(5) -aminoimidazole -5(4)-
carboxamide and its amount in human and animal urine [with
summary in English]. Biokhimiia 23 no.6:887-890 N-D '58

(MIRA 11:12)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.
(IMIDAZOLECARBOXAMIDE)
(PAPER CHROMATOGRAPHY)
(URINE--ANALYSIS AND PATHOLOGY)

OPARIN, A.I., akademik, red.; BRAUNSHTEYN, A.Ye., red.; PASYNSKIY, A.G.,
prof., red.; PAVLOVSKAYA, T.Ye., kand.biolog.nauk, red.; ZHAMEN-
SKAYA, M.P., red.izd-va; BUNDEL', A.A., red.izd-va; POLENOVA,
T.P., tekhn.red.

[Origin of life on the earth; transactions of the international
symposium of August 19-24, 1957, in Moscow] Vozniknovenie zhizni
na zemle; trudy mezhdunarodnogo simpoziuma 19-24 avgusta 1957 goda,
Moskva. Moskva, Izd-vo Akad.nauk SSSR, 1959. 671 p. (MIRA 12:12)

1. Deystvitel'nyy chlen AMN SSSR (for Braunshteyn).
(LIFE--ORIGIN--CONGRESSES)

37(3)
AUTHOR:

Braunshteyn, A. Ye.,
the AMS USSR

Member of SOV/30-59-1-17/57

TITLE: 4th International Biochemical Congress (IV. Mezhdunarodnyy biokhimicheskiy Kongress)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 1, pp 90 - 93 (USSR)

ABSTRACT: The Congress took place in Vienna on October 1-6, 1958. More than 1600 reports were heard on different problems of biological chemistry and allied sciences. Among the participants (more than 4000) were the greatest biochemists in the world, as well as a number of Nobel Prize winners. As it is impossible to report in a short article on all problems with which the Congress dealt, the author contented himself with pointing out the principal trends of the current stage of development in biochemistry. After a period of quick development, a certain stagnation has now set in in this field. Special attention was paid to examinations of the chemical structure of albumen and of nucleic acids, as well as to processes of their biosynthesis, which were an important subject in the Congress and are described in detail by the author. 50 Soviet biochemists

Card 1/2

4th International Biochemical Congress

SOV/30-59-1-17/57

took part in the work of the Congress. The reports by A. N. Belozerskiy, G. F. Gauze, A. A. Krasnovskiy, M. N. Lyubimova, A. I. Oparin, S. Ye. Severin, N. M. Sisakyan are especially mentioned by the author. At the final meeting it was announced that the next (5th) International Biochemical Congress will be held in Moscow in 1961.

Card 2/2

BRAUNSHTEYN, A. Ye.

Some features of the chemical integration of processes of nitrogen metabolism. Vest.AMN SSSR-14 no.5:45-60 '59. (MIRA 14:5)

1. Deystvitel'nyy chlen AMN SSSR.
(NITROGEN METABOLISM)

KHUN' MUN-MIN [Hun Mung-ming] (Kitayskaya Narodnaya Respublika, Kitayskaya Akademiya nauk, Institut fiziologii rasteniy); SHEN' SAN-CHUN [Shen Snag-ch'ung] (Kitayskaya Narodnaya Respublika, Kitayskaya Akademiya nauk, Institut fiziologii rasteniy); BRAUNSHTEYN, A.Ye.

Distribution of L-alanine dehydrogenase and L-glutamic dehydrogenase in micro-organisms of the genus Bacillus. Biokhimiia 24 no.5:929-937 S-O '59. (MIRA 13:2)

1. Institut biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR, Moskva.

(BACILLUS metab.)

(DEHYDROGENASES metab.)

SHEN' SAN-CHUN [Sheng Sang-chung]; KHUN' MUN-MIN [Hun Mung-ming];
BRAUNSHTEYN, A.Ye.

The main pathway of nitrogen assimilation in Bac. subtilis. Bio-
khimiia 24 no.6:957-965 N-D '59. (MIRA 13:5)

1. Institute of Biological and Medical Chemistry, Academy of
Medical Sciences of the U.S.S.R., Moscow. 2. Institute fizi-
ologii rasteniy Kitayskoy Akademii nauk, Shangkhai (for Shen'
San-Chun and Khun' Mun-min).

(BACILLUS SUBTILIS metab.)

(NITROGEN metab.)

BRAUNSHTEYN, A.Ye.; SYUY TIN-SEN' [Hsü T'ing-sên]

Isolation and purification of glutamine transaminase from the rat liver. Biokhimiia 25 no.4:758-767 J1-Ag '60. (MIRA 13:11)

1. Laboratory of Nitrogenous Metabolism, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.

(GLUTAMINE TRANSAMINASE)

(LIVER)

AZARKH, R.M.; BRAUNSHTEYN, A.Ye.; PASKHINA, T.S.; SYUY TIN-SEN'

Effect of optical isomers of cycloserine on the activity of certain aminopherases. Biokhimiia 25 no.5:954-963 S-O '60. (MIRA 14:1)

1. Laboratory of Nitrogenous Metabolism, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.

(TRANSAMINASES)

(ISOXAZOLIDIONE)

(ISOMERS)

BRANSHTEYN, A. ^Y/_E. (USSR)

"Studies on the Properties, Mechanism of Action and Selective
Inhibition of Transaminases."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

BRAUNSHTEYN, A. Ye.

Work of Commission for Enzymes of the International Union of
Biochemistry. Biokhimiia 26 no.3:562-563 My-Je '61. (MIRA 14:6)
(ENZYMES)

DIKSON, M. (Kembridzh) [Dixon, M.]; BRAUNSHTEYN, A.Ya. [translator]

Nomenclature of nicotinamide nucleotide coenzymes. Biokhimiia
26 no.3:563-566 My-Je '61. (MIRA 14:6)
(CODEHYDROGENASE) (ENZYMES—NOMENCLATURE)

BRAUNSHTEYN, A.Ye.; AZARKH, R.M.; SYUY TIN-SEN' [Hsü T'ing-sên]

Kinetics of cycloserine inhibition of enzymatic transamination reactions. Biokhimiia 26 no.5:882-896 9-0 '61. (MIRA 14:12)

1. Laboratory of Nitrogenoys Metabolism, Institute of Biological and Medical Chemistry, of the U.S.S.R. Academy of Medical Sciences, Moscow.

(CYCLOSERINE)

(AMINO GROUP)

BRAUNSHTEYN, A.Ye.

Symposium on cellular permeability and a congress of biochemists
in Czechoslovakia. Vest. AN SSSR 31 no.2:93-94 F '61.
(MIRA 14:2)

1. Chlen-korrespondent AN SSSR.
(Cells—Permeability) (Czechoslovakia—Biochemistry)

OREKHOVICH, V.N., otv. red.; BRAUNSHTEYN, A.Ye., red.; KAPLANSKIY, S.Ya., red.; RED'KIN, I.A., red.; VYSHEPAN, Ye.D., red.; KUZ'MINA, N.S., tekhn. red.

[Problems arising in modern biochemistry] Aktual'nye voprosy sovremennoi biokhimii. Moskva, Medgiz. Vol.2. [Chemistry and the mechanism of enzyme action] Khimiia i mekhanizm deistviia fermentov. 1962. 251 p. (MIRA 15:6)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut biologicheskoy i meditsinskoy khimii. 2. Institut biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR, Moscow (for Orekhovich, Braunshteyn, Kaplanskiy). (ENZYMES)

POLYANOVSKIY, O.L.; TORCHINSKIY, Yu.M.; Prinimali uchastiye:
MALKOVA, M.G.; KOSAREVA, Ye.A.; SISAKYAN, N.M., akademk,
glav. red.; BAYEV, A.A., zam. glav. red.; BRAUNSHTEYN,
A.Ye., red. toma; VETROVA, I.B., red. izd-va; ZUDINA, V.I.,
tekhn. red.; DOROKHINA, I.N., tekhn. red.

[Molecular mechanism of enzyme action and inhibition; symposium 4]
Molekuliarnye osnovy deistviia i tormozheniia fermentov; simpo-
zium IV. Moskva, Izd-vo Akad. nauk SSSR, 1962. 361 p. (Its:
Trudy) (MIRA 16:2)

1. International Congress of Biochemistry. 5th, Moscow, 1961.
2. Chlen-korrespondent Akademii nauk SSSR (for Braunshteyn).
(ENZYMES)

POLYANOVSKIY, O.L.; BRAUNSHTEYN, A.Ye.

Interaction between certain thiol compounds and highly purified
aspartic-glutamic transaminase. Dokl.AN SSSR 145 no.4:933-936
Ag '62. (MIRA 15:7)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
2. Chlen-korrespondent AN SSSR (for Braunshteyn).
(GLUTAMIC-OKALACETIC TRANSAMINASE)
(MERCAPTO COMPOUNDS)

BRAUNSHTEYN, A.Ye.

"Active centers" and the nature of the catalytic action of enzymes.
Zhur.VKHO 8 no.1:81-94 '63. (MIRA 16:4)
(Enzymes) (Biochemistry)

BRAUNSHTEYN, A.Ye.

Symposium on the problem of pyridoxal catalysis. Vest. AN SSSR
33 no.3:119-121 Mr '63. (MIRA 16:3)

1. Chlen-korrespondent AN SSSR.
(Pyridoxal) (Enzymes)

TORCHINSKIY, Yu.M.; BRAUNSHTEYN, A.Ye.

Role of sulfhydryl groups in maintaining the catalytically active structure of aspartic-glutamic transaminase. Dokl. AN SSSR 148 no.4:952-955 F '63. (MIRA 16:4)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR. 2. Chlen-korrespondent AN SSSR (for Braunshteyn).
(Mercapto group) (Glutamic-oxalacetic transaminase)

TORCHINSKIY, Yu. M.; KORENEVA, L. G.; BRAUNSHTEYN, A. Ye.

3

"Studies on the Rotatory Dispersion of Aspartateglutamate Transaminase."

report ~~to be~~ submitted for 6th Intl Biochemistry Cong, New York City, 26 Jul-1 Aug 1964.

BRAUNSHTEYN, A.Ye.; GNUCHEV, N.V.; POZNANSKAYA, A.A.

Nonenzymatic reamination of δ -aminolevulinic acid. Dokl. AN SSSR
152 no.5:1239-1242 0 '63. (MIRA 16:12)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
2. Chlen-korrespondent AN SSSR (for Braunshteyn).

BRAUNSHTEYN, A.Ye.; VILENKINA, G.Ya.; BRUSOVA, L.V.

Pyridoxal phosphate participation in the active transport
of amino acids through cell membranes. Vop. med. khim. 9
no.5:475-480 S-O '63. (MIRA 17:1)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR,
Moskva.

BRAUNSHTEYN, A.Ye., red.; YAKOVLEV, V.A., red.

[Mechanism and kinetics of enzymic catalysis] Mekhanizm i kinetika fermentativnogo kataliza. Pod red. A.E. Braunshteina i V.A. Yakovleva. Moskva, Nauka, 1964. 294 p. (MIRA 17:9)

1. Nauchnaya konferentsiya poavyashchennaya problemam mekhanizma deystviya i kinetiki fermentativnogo kataliza, Moscow, 1963. 2. Institut khimicheskoy fiziki AN SSSR i Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR (for Yakovlev).

YAKOVLEV, V.A.; ENGEL'GARDT, V.A., akademik, glav. red.; DEBORIN,
G.A., zam. glav. red.; BRAUNSHTEYN, A.Ye., akademik, red.
POZNANSKAYA, A.A., red.

[Enzymes] Fermenty. Moskva, Nauka, 1964. 310 p.
(MIRA 17:9)

BRAUNSHTEYN, A.Ye., akademik, otv. red.; BAYEV, A.A., zam. otv. red.; NESMEYANOV, A.N., akademik, red.; TAMM, I.Ye., akademik, red.; VENKSTERN, T.V., zam. otv. red.

[Molecular biology; problems and perspectives. On the 70th birthday of Academician V.A.Engel'gardt] Molekuliarnaya biologiya; problemy i perspektivy. K 70-letiiu so dnia rozhdeniya akademika V.A.Engel'gardta. Moskva, Nauka, 1964. 342 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Institut radiatsionnoy i fiziko-khimicheskoy biologii.

BRAUNSHTEYN, A.Ye.; POZNANSKAYA, A.A.; SPRISHKOVA, R.A.; GNUCHEV, N.V.

Inclusion of a hydrogen atom of C-5 and δ -aminolevulinic acid into inosinic acid and hypoxanthine in the liver of a pigeon.
Dokl. AN SSSR 157 no.4:982-984 Ag '64 (MIRA 17:8)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.
2. Chlen-korrespondent AN SSSR (for Braunshteyn).

BRAUNSHTEYN, A.Ye., akademik

Successes of enzyme chemistry. Vest. AN SSSR 34 no.10:50-59
O '64.
(MIRA 17:11)

BRAUNSHTEYN, A.Ye.; TORCHINSKIY, Yu.M.; MALAKHOVA, E.A.; SINITSYNA, N.I.

Interaction of aspartate aminotransferase with pyridoxamine phosphate
and its analogs. Ukr. biokhim. zhur. 37 no.5:671-678 '65.

(MIRA 18:10)

1. Institut molekulyarnoy biologii AN SSSR, Moskva.

SIRBU, M.; DUMA, M.; PRANITKI, A.; PAUKER, M.; COLIN, L.; BRAUNSTEIN, F.

Radiotelemechanical control of the hoisting machinery. Probleme
automatiz 4:205-210 '63.

BRAUNSHTEYN, M.

On the forthcoming competitions in aerobatics. Kryl.rod. 4 no.8:6 Ag '53.
(MLBA 6:7)

(Airplanes--Piloting)

✓
BRAUNSHTEIN, N. A.

Kinetics of the decomposition of hydrogen peroxide by means of gold sols of different degrees of dispersion.
 I. S. Tektov and N. A. Braunschtein. *Trudy Inst. Khim. Kharkov. Derzhavn. Univ.* 3, 7-13 (1938); *Khim. Referat. Zhur.* 2, No. 2, 4 (1938).—The sols of Au used in the investigations were prepd. by reduction of AuCl₃ with alc., ether soln. and tannin, and by interaction between AuCl₃ and H₂O₂. The sols were dialyzed for 2-3 days and were examd. in a tyndallimeter and in a colorimeter. In a neutral medium none of the sols decompd. H₂O₂. The catalytic decompn. takes place only in the presence of NaOH (as was detd. previously by Bredig and Reinders for the sol obtained by the electrolytic method). The velocity of decompn. of H₂O₂ was max. in N/32 NaOH. The velocity const. (calcd. from the equation of the first order) has different values for sols obtained by different methods. The catalytic decompn. of H₂O₂ by sols of the same concn. increases with the increase of their dispersion.
 W. R. Henn

BRAUNSHTEYN, N.Ye., prof.

"Practical manual on pathohistological techniques for ophthalmologists" by V.N. Arkhangel'skii. Reviewed by N.E. Braunshtein.
Vest.oft. 71 no.3:54-55 My-Je '58 (MIRA 11:9)
(EYE--EXAMINATION)

NONHISTORICAL, R.F.

YU. V. GUBINA, A. A. GUBIN, A. A. GUBIN
In a Russian Symposium of Papers entitled "Heat Treatment of
Rails", edited by I. E. Bardin and published by the Soviet
Academy of Science, Moscow 1950. The following articles
appeared: Prevention of flake formation in undercooled rails.

SC: 886103

BraunshTeyn, R.A.

AUTHORS: Amchislavskiy, N.V., BraunshTeyn, R.A. and Shlionskiy, M.S.
(Engineers).

130 - 6 - 13/27

TITLE: Selection of a rational tool for pneumatic de-seaming of metal. (Podbor ratsional'nogo instrumenta dlya pnevmaticheskoy zachistki metalla).

PERIODICAL: "Metallurg" (Metallurgist), 1957, No.6, pp.25-28 (USSR).

ABSTRACT: In this article the selection of pneumatic hammers and bits for de-seaming steel before rolling is discussed. The characteristics of the eight types of pneumatic hammer at present used are tabulated and some of the numerous variations of bit form are illustrated. The effect on labour productivity of hammer power and the weight and shape of the bit are considered, the corresponding relations being shown graphically: all are seen to be important and the bit shape effect also depends on the type of steel. The effect of bit/hammer gap on the useful power of the hammer is also discussed and shown graphically. In general the authors recommend that hammers of maximal permitted power should be used: types KE-22, KE-28 and KE-32 for hand-support, knee support and heavier work, respectively. The material presented is based mainly on experiments at the Kuznetsk Metallurgical Combine.

Card 1/2

Selection of a rational tool for pneumatic de-seaming of
metal. (Cont.) 130 - 6 - 13/27

There are 6 figures and 1 table.

ASSOCIATION: Kuznetsk Metallurgical Combine.
(Kuznetskiy Metallurgicheskiy Kombinat).

AVAILABLE:

Card 2/2

BRAUNSHTEYN, R.A., inzh.

Production of two-layer sheet steel. Biul' TSHIICHM no.7:25-27

'58.

(MIRA 11:6)

(Metal cladding) (Sheet steel)

Braunshteyn, R. A.

AUTHOR: Soroko, L.N., nefedov, A.A., Yershov, V.H., Masjukov, S.N. (Deceased), Frolov, N.P. and Braunshteyn, R.A. SOV/133-58-6-18/33

TITLE: Rolling of Lightened Nr 19 Beam from Low Alloy Steel 09G2D (Prokatka oblegchenoy balki no 19 iz nizkolegirovannoy stali 09G2D)

PERIODICAL: Stal', 1958, Nr 6, pp 532 - 537 (USSR)

ABSTRACT: An experimental rolling of a lightened Nr 19 beam from low-alloy steel 09G2D (composition %: C $\leq$ 0.12; Mn 1.4-1.7; Si 0.2-0.4; Cu 0.22-0.44; Cr $\leq$ 0.30; Ni 0.01-0.03; S and P $\leq$ 0.04) is described. Lightened Nr 19 beam (Figure 1) (TuTs 08-124-57) weighs 19.5% less per m than normal Nr 19 beam (GOST-5267-50) which is usually rolled from steel St3. For experimental rolling, four heats of steel 09G2D were made. Rolling was done on the mill 500 from shaped semis (Figure 2). The calibration of rolls is shown in Figure 3. The metal was heated from cold charging to an average temperature of 1170 °C. The decrease of temperature in the individual passes - Figure 4. The final temperature of the neck of the beam was 60 °C lower than that of normal beam. Frequency distribution of deviations of dimensions from the nominal ones - Figure 5. The comparison of the loads on the individual stands during rolling of normal and lightened nr 19

Card1/3

SCV/133-58-6-18/33

Rolling of Lightened Nr 19 Beam from Low Alloy Steel O9G2D

beams together with the maximum permissible loads and rpm of motors - Table 1. The comparison of the mill throughput per hour during rolling normal and lightened Nr 19 beams - Table 2. Mechanical properties of specimens cut from various places of the beam - Tables 3 and 4. It is concluded that: 1) rolling of light Nr 19 beams on the mill 500 is possible with the existing equipment; 2) dimensions of the profile obtained were situated mainly in the range of minus tolerances; 3) the temperature of the neck at the end of rolling was 790 °C, i.e. 60 °C below the temperature obtained during rolling normal beam Nr 19; 4) loads on motors of roughing stands was 22-23% higher than during rolling of normal Nr 19 beam. Loads on the finishing stand either do not exceed or only slightly exceed permissible ones; 5) specific power consumption was 37% higher than during rolling normal Nr 19 beam from St.3 steel; 6) the output of the mill during rolling of the light beam decreases by 17%. It is expected that with mastering of the process, this decrease can be reduced to 8%; 7) the chemical composition and mechanical properties of O9G2D steel

Card 2/3

Rolling of Lightened Nr 19 Beam from Low Alloy Steel 09G2D SOV/133-58-6-18/33

satisfy the requirements of standard ChMTU-5688-56 for low-alloy steels. The following engineers participated in the work: N.I. Khoroshev, I.M. Sharapov and F.A. Firsakov. There are 5 figures and 4 tables.

ASSOCIATIONS: Kuznetskiy metallurgicheskiy kombinat (Kuznetsk Metallurgical Combine) and Ural'skiy institut chernykh metallov (Urals Institute of Ferrous Metallurgy)

Card 3/3

1. Beams--Production 2. Rolling mills--Applications

BRAUSE, M. B., GLADIKH, V. F., ZHUKOVA, T. A., GAZODOVA, G. YE.,
ZAL'NOVA, N. S., MASHLOVSKIY, SH. D., FASTOVSKAYA, E. I., CHURNOSOVA, A. A.
SERGIYEV, P. G., STAVROVSKAYA, V. I., LYSENKO, A. L.

"Quinocide and the prospects of acceleration of the malaria
eradication rate in the USSR."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists
and Infectionists, 1959.

BLINOV, O.S.; BELEN'KIY, Ye.I.; BRAUSEVICH, S.T.; DOROKHOV, B.A.;
ZIGMUND, F.R.; ITSIKOV, G.B.; LEVER, A.A.;
LESHCH-BORISOVSKIY, A.I.; MURTUZALIYEV, S.A.; PIIR, A.I.;
YUZHNIKIN, Ye.Ye.; YAKIMOV, I.D.; SHCHELKUNOV, V.V.,
retsensent; GONCHAROV, A.F., otv. red.; KORCHUNOV, N.G.,
otv. red.; NIKOL'SKIY, B.V., otv. red.; POSTREMOV, G.A.
[deceased]; SLUTSKER, M.Z., red. izd-va; SHIBKOVA, R.Ye.,
tekhn. red.

[Lumbering; land transportation of timber] Lesozagotovki;
sukhoputnyi transport lesa. Spravochnik. Moskva, Gosles-
bizdat, 1962. 504 p. (MIRA 16:7)
(Lumber—Transportation)

BRAUSIL, B.

"The development of Gaucher's cells in bone marrow; a cytological study of Gaucher's cells and a contribution to the interpretation of the pathogenesis of Gaucher's disease." p. 111 (Yugoslavia. Vol. 1, 1951, Zagreb)

SO: Monthly List of ^{East European} ~~Russian~~ Accessions / Vol. 2, No 9 Library of Congress, September 1953, Uncl.

BRAUSIL, BEATA.

BRAUSIL, Beata

The large lymphoid reticulum cells in the bone marrow. Radovi
Med. fak. Vol. 3:261-266 1953.

1. Interna klinika Medicinskog fakulteta u Zagrebu. Priljeno
20.VIII.1953.

(BLOOD CELLS

*hemohistioblast, theories)

BRAUSIL, Beata, Dr.

~~XXXXXXXXXXXXXXXXXXXX~~
The possibility of identification of atypical myeloblasts and lymphoblasts. Lijec.vjes. 76 no.9-10:475-480 1954.

1. Hematoloski laboratorij Interna klinike Medicinskog fakulteta u Zagrebu.

(LYMPHOCYTES,

lymphoblasts, atypical, identification by phase microscopy (Ser))

(BONE MARROW,

myeloblasts, atypical identification by phase microscopy (Ser))

(MICROSCOPY, PHASE,

of atypical myeloblasts & lymphoblasts, differentiation (Ser))

BRAUZE, Zenon

Meters for sulphuric acid concentration. Pt. 1. Przem chem 39
no.11:674-678 '60.

1. Zakładowe Laboratorium Badawcze przy Poznańskich Zakładach
Nawozów Fosforowych, Lubon k. Poznania

BRAUZE, Zenon; OZOG, Roman

Standardization of gas and liquid flowmeters by the calorimetric method. Przem chem 39 no.11:678-682 '60.

1. Zakładowe Laboratorium Badawcze przy Poznańskich Zakładach Nawozow Fosforowych, Lubon k. Poznania

Distr: hE2c(m)

21 Automatic nitrogen oxide analyzer in the production of sulfuric acid by the chamber process. Zenon Brauze, Jerzy Dankiewicz, Norbert Koralowski, and Józef Wesołowski (Inst. Sulfuric Acid and Phosphoric Fertilizers, Lubon, Poland). *Przemysł Chem.* 38, 371-3 (1959).—In order to control the NO:NO₂ ratio in the gas for the absorption step in the chamber process, an automatic analyzer was designed to measure the concn. of NO₂ in the system and the sum of concns. of the latter and of NO₂ arising from oxidizing NO in the analyzer. For this purpose the photocolormeter (Visomat, type KWR) was used. It was standardized by NO₂ obtained as NO from HNO₃ in the reaction with Hg and H₂SO₄, followed by oxidn. with air. Photoelements, "Spezial Blau," and blue filters of BG12 type were used. The presence of O, N, SO₂, NO, H₂O, and HNO₃ did not interfere. The error of the photocolormeter was not higher than 1% of the range measured. The gases were purified from the H₂SO₄ suspension by a system of small cyclones and drying tubes.

J. Gallus-Olender

7
MJC(JD)
1

BRAVAR, M.

Investigation of the degradation of the cellulose molecule
under the influence of oxidizing agents. Bul sc Youg 8
no.3/4:86 Je-Ag'63.

1. Kemijsko-tehnoloski odjel, Tehnoloski fakultet, Zagreb.

FILIPAN, Tugomir, inz.; BRAVAR, Danica, dipl. farm.; VEBLE, Drago, inz.

Paper chromatography as a method in the quantitative determination of free amino acids in the production of oxytetracycline. Kem ind 12 no.6:440-446 Je '63.

1. Institut za stočarstvo i mljekarstvo, Poljoprivredni fakultet, Zagreb (for Filipan).
2. "Pliva", tvornica farmaceutskih i kemijskih proizvoda, Zagreb (for Bravar and Veble).

YUGOSLAVIA/Chemical Technology - Cellulose and Its Derivatives. H-33
Paper.

Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 83805

Author : Krajeinovic, M., Bravar, M., Kurbegovic, M.
Inst : -
Title : The Removal of Lignin From a Wood Pulp in the Preparation
of Kraft Cellulose.

Orig Pub : Kemija u industriji, 1958, 7, No 3, 65-68.

Abstract : The conditions for pulping kraft cellulose from pine
groundwood were investigated. In the first series of pul-
ping, the pulping liquor contained NaOH and Na_2S and in
the second one - NaOH and polysulfides of sodium. In the
third series of pulping the composition of the pulping
liquor was the same as in the second one but a black li-
quor was added. Pulping with a solution containing Na_2S
produces optimum results at a 40% sulfide concentration
and better still by using sodium polysulfide with 12%
of the sulfide concentration.

Card 1/1

- 72 -

COUNTRY : Yugoslavia H-34
CATEGORY :
ABS. JOUR. : RZKhim., No. 1959, No. 88720
AUTHOR : Krajinovic, M.; Bravar, M.
INST. :
TITLE : Comparative Bleaching of Viscose and
Cuprammonium Fiber with Hypochlorite Solution
ORIG. PUB. : Tekstil, 1958, 7, No 12, 1016-1025
ABSTRACT : Study of the effect of active chlorine concentration and pH of bleaching solution on integrity of bleached viscose and cuprammonium fibers. Bleaching was conducted for 1 hour with bath modulus 40:1 and at 20°. It was found that loss in strength of viscose filaments is slight at an active chlorine concentration of 0.7 g/liter and pH 4.0-9.5, but on increase of concentration of the solution to a content of active chlorine of 1.4 g/liter, loss in strength is somewhat greater although still within the permissible range. Increase of concentration above 1.4 g/liter is not allowable and the resultant decrease in filament strength is greatest in neutral medium. Permissible loss in strength of the
CARD: 1/2

COUNTRY	: Yugoslavia	H-34
CATEGORY	:	
ABS. JOUR.	: REKhim., No.	1959, No. 88720
AUTHOR	:	
INST.	:	
TITLE	:	
ORIG. PUB.	:	
ABSTRACT	: cuprammonium filaments is observed only at active chlorine concentration of 0.7 g/liter (optimal pH 4.5) and 1.4 g/liter, but only in weakly acidic media. Concurrent determinations of coefficients of cellulose polymerization and of the content of carboxyl groups therein yielded results in accord with those obtained on determining loss in strength of the filaments, and confirmed the above stated conclusions. -- Z. Lebedeva	
CARD:	2/2	
274		

COUNTRY:	: Yugoslavia	H-33
CATEGORY	:	
ABS. JOUR.	: RZhim., No. 5 1960, No.	20430
AUTHOR	: Krajinovic, M., Bravar, M., and Jankovic, D.	
INST.	: Not given	
TITLE	: Studies on the Dyeing of Sulfite Cellulose Ground to Varying Degrees of Fineness	
ORIG. PUB.	: Kemija u Industriji, 3, No 3, 70-72 (1959)	
ABSTRACT	Results are presented from work on the dyeing of bleached and unbleached sulfite cellulose with direct, acid, and basic dyes (D), using cellulose ground to different degrees of fineness and different D concentrations in the bath. The dyeing was carried out with and without the addition of resinous sizing materials, particularly sodium resinate. Best results were obtained when direct D were used, followed by acid and basic D. T. Budkevich	
CARD:	1/1	

BRAVAR, Mladen, ing.; LIPIC, Boris, ing.

Neutral sulfite semicellulose from tobacco stalks. Kem ind 9
no.10:247-250 0 '60.

1. Zavod za organsku kemijsku tehnologiju Tehnoloskog fakulteta
Sveucilista u Zagrebu (for Bravar). 2. Tovarna celuloze in papirja
"Duro Salaj", Videm-Krsko (for Lipic).

VRANESIC, Zd.; BRAVENEC, Ant.

Our experience with the use of injections of gas from springs in the treatment of patients with nervous diseases. Cesk. neurol. 25 no.1: 60-69 Ja '62.

1. Neurologické rehabilitační odd. St. lázní Mar. Lázně.

(NEUROLOGY therapy) (GASES)

BRAVENY, P.; KRUTA, V.

Potentiation activity of myocardial contractions. Cesk. fysi ol. 7 no.5:
432-433 Sept 58.

1. Fysiologicky ustav lek. fak. MU, Brno.
(HEART, physiol.

potentiation of cardiac contractions in vitro (Cz))

BRAVENY, P.; KRUTA, V.

Post-estrasystolic potentiation of cardiac responsiveness. Cesk. fysiол.
7 no.5:433-434 Sept 58.

1. Fysiologicky ustav lek. fak. MU, Brno.
(HEART, physiол.

post-extrasystolic potentiation of responsiveness (Cz))

BRAVENY, P.

Essay on the analysis of rules governing changes of cardiac contractions.
Cesk. fysiolo. 8 no.3:174-175 Apr 59.

1. Fysiologicky ustav lek. fak. MU, Brno. Predneseno na III. fysiologickych
dnech v Brne dne 13. 1. 1959.

(HEART, metab.

contraction, rules (Rus))

BRAVENY, Pavel

Writers, musicians and artists among physicians. Cas.lek.cesk.
98 no.46:1438-1440 13 N '59.

(PHYSICIANS)

(ART)

(MUSIC)

(LITERATURE)

BRAVENY, P.;KRADA, V.;STEJSKALOVA, J.

Pessimism of contractility of the mammalian cardiac auricle. Cesk.
fysiol. 9 no.1:3-4 Ja 60.

1. Fysiologicky ustav lek. fak. MU, Brno.
(HEART physiol.)

KRUTA, V.; BRAVENY, P.; HLAVKOVA-STEJSKALOVA, J.; HUSAKOVA, B.

Restoration of myocardial contractility and inotropic effects
(ouabain, quinidine, tyramine, theophylline and acetylcholine)
in guinea pigs and rats. Scr. med. fac. med. Brunensis 36
no.1/2:1-26 '63.

1. Katedra fysiologie lekarske fakulty University J.E. Purkyně
v Brně Vedoucí prof. MUDr. DrSc. Vladislav Kruta.
(MYOCARDIUM) (TYRAMINE) (THEOPHYLLINE)
(ACETYLCHOLINE)

BRAVENY, Pavel

Frequency-dependent variations of the duration of tension development in the guinea pig left auricle. Scr. med. fac. med. Brunensis 36 no.5:205-213 '63.

1. Katedra fysiologie Lekarske fakulty University J. E. Purkyne v Brne, Vedouci: Prof. MUDr. Dr. Sc. Vladislav Kruta.
(ELECTROPHYSIOLOGY) (ANOXIA) (NITROGEN)
(FLUORACETATES) (DINITROPHENOLS)
(HEART)

BRAVENY, P.; DVORAK, S.

Electronic model of the rhythmic cardiac contraction regulation. Cesk. fysiол. 14 no.3:233-234 My'65.

1. Katedra fysiologie lekarske fakulty university J.E.Parkyne, Brno; VTAAZ, B no.

CZECHOSLOVAKIA

BRAVENY, P.; KRUTA, V.; SUMBERA, J.; Department of Physiology, Medical Faculty of J.E. Purkyne University (Katedra fysiologie lek. fak. univ. J.E. Purkyne), Brno.

"Slow Tonic Contractions and Atypical Course of Restoration of Myocardial Contractility."

Prague, Ceskoslovenska Fysiologie, Vol 14, No 5, Oct 1965; p 339.

Abstract: Study of isolated left sinuses of guinea pigs exposed to high stimuli, low temperature, high Ca++ level, epinephrine and other conditions. The intensity of contraction could not be correlated with the rapidity of restoration of contractility, suggesting an interplay of multiple factors. Graph, 1 Western reference. Paper presented at the 15th Physiology Days, Olomouc, 27 May 65.

1/1

CZECHOSLOVAKIA

BRAVENY, P.; MEIJLER, F.L.; Department of Physiology, Medical Faculty of J.E. Purkyne University (Katedra fysiologie lek. fak. univ. J.E. Purkyne) Brno, and Cardiology Clinic, University of Amsterdam (Kardiologische Kliniek Universiteit van Amsterdam).

"Paired Stimulation of Heart and its Physiologic Significance."

Prague, Ceskoslovenska Fysiologie, Vol 14, No 5, Oct 1965; p 340.

Abstract: Study in isolated rat hearts perfused at 38° centigrade 1 millisecond 1 milliamperes. The new paired stimulation method (2 rapidly succeeding pulses to the right chamber) was seen to vary in effect by variation of interval between pulses (100 to 600 milliseconds). Graph, 4 Western references. Paper presented at the 15th Physiology Days, Olomouc, 26 May 65.

1/1

CZECHOSLOVAKIA

SUMBERA, J., BRAVENY, P., KRUTA, V: Physiological Institute,
Medical Faculty, J.E.Purkyne University (Fysiologicky Ustav Lek.
Fak. University J.E.Purkyne), Brno.

"The Influence of Sudden Temperature Changes on the Length of
Rest and Contraction of Chamber Myocardium."

Prague, Ceskoslovenska Fysiologie, Vol 15, No 2, Feb 66, p 117

Abstract: The authors studied an isolated heart suspended in a
bath containing Krebs-Henseleit's solution, where sudden temp-
erature changes between 16° and 35°C can be made within 1 to 1½
seconds. The results obtained with various temperature changes
are described. 2 Czech references. Submitted at "16 Days of
Physiology" at Kosice, 29 Sep 65.

1/1

- 166 -

BRAVENY, P.

~~Autoregulatory contraction of mammalian myocardium from a comparative viewpoint.~~

Autoregulatory contraction of mammalian myocardium from a comparative viewpoint. Cesk. fysiол. 13 no.4:389-390 J1 '64.

1. Katedra fysiologie lek. fak. Brno.

CHERKES, A.I., BRAVER-CHERNOBUL'SKAYA, B.S.

Unithiol, an antidote in cobalt poisoning [with summary in English].
Farm. i toks. 21 no.3:59-63 My-Je '58 (MIRA 11:7)

1. Otdel eksperimental'noy terapii (zav. - chlen-korrespondent
AMN SSSR prof. A.I. Cherkas) Ukrainского nauchno-issledovatel'skogo
sanitarno-khimicheskogo instituta.

(COBALT, toxicity,

antidote, sodium 2,3-dimercaptopropanesulfonate (Rus))

(SULFHYDRYL COMPOUNDS, effects,

sodium 2,3-dimercaptopropanesulfonate, on exper. cobalt
pois. (Rus))

NAGY, A.; BRAVER, H.

Once again about the problem of collagen. Ujjit lap 14 no.22:8-9
25 N '62.

BRAVERMAN, A. H.

Problems in determining the effective length of the operational
season in sugar factories. Trudy KTIPP no.18:31-41
'57. (MIRA 13:1)

(Sugar industry)

BRAVERMAN, A.M.

Ways of increasing the utilization of the production capacity
of sugar factories operating in the Ukrainian S.S.R. Trudy
KTIPP no.18:91-96 '57. (MIRA 13:1)
(Ukraine--Sugar industry)

BRAVERMAN, A.M.

Economy of capital investments and economic effectiveness of an
increased utilization of basis funds. Trudy KTIPP no.20:59-64 '59.
(MIRA 13:12)

(Industry—Finance)

BRAVERMAN, A.M., kand. ekon. nauk; SOROKINA, G.A., otv. za vyp.;
FRIDMAN, S.A., red.

[Basic problems of the development of modern clothing]
Osnovnye problemy razvitiia sovremennoi odezhdy. Kiev,
Kievskii dom nauchno-tekhn. propagandy, 1962. 20 p.
(MIRA 17:1)

SOV/179-59-2-4/40

AUTHOR: Braverman, A. S. (Moscow)

TITLE: Theory of an Ideal Rotor of a Helicopter (Teoriya ideal'nogo nesushchego vinta vertolet)

PERIODICAL: Izvestiya Akademii nauk SSSR OTN, Mekhanika i mashinostroyeniye, 1959, Nr 2, pp 25-30 (USSR)

ABSTRACT: The character of a lifting air flow is described by the author. His method of calculation is based on the Fig 1, where 3 cross-sections are shown: in front of the rotor (0), through its axis (1), and behind it (2). Denoting the inductive velocity which corresponds to the lifting force Y by the vector v_y , the velocity corresponding to the resistance force X by v_x and the velocity of an undisturbed flow by V , the motion is described by the expression (1.1) where m is the air mass passing through the cross section (1). The kinetic energy of this air mass can be shown in the form of the components E_y and E_x (Eq (1.5)). The coefficients of the force and the moment in the general case can be defined as Eqs (1.7) and (1.8) when the angle of incidence of the rotor is taken into consideration. The relationship between the coefficients of force and velocity can be shown

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SOV/179-59-2-4/40

Theory of an Ideal Rotor of a Helicopter

as Eqs (1.9) to (1.12) (Figs 2 and 3 where α - angle of axial rotation) and Eqs (1.13) and (1.14) (Figs 4 and 5). Then the expressions (1.7) and (1.8) can be written in the form of Eq (1.15) to Eq (1.17). In the case when $\lambda = 0$, i.e. when the air does not flow through the disc, the components of velocity $u' \cos \alpha$ and $\mu' \sin \alpha$ coincide with the vectors U and u and $\alpha = \beta = \delta$ (Fig 5). In the case of self-rotation: $\lambda + a_1$, $\mu' = 0$, $C_H = C_{Ta_1}$ and the polygon of velocity will take the form as shown in Fig 6. When the power is transmitted to the rotor ($m_k > 0$) the angle β becomes $> \delta$ and the angle (u, U) becomes an acute angle (Fig 7). For practical considerations, the torque coefficient can be determined from Eq (2.1) where $\bar{b}$ and $\bar{r}$ - chord and radius of the blade respectively, $\bar{W}$ - total

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SOV/179-59-2-4/40

Theory of an Ideal Rotor of a Helicopter

velocity of flow in the cross-section described by the blades, k = number of blades. The effective radius of the blade is taken as $\kappa \frac{1}{2} R$ where κ - coefficient of the residual loss of the lifting force = 0.94. The relationship of C_Y and C_X and m_k for various values of the velocity μ' can be defined as Eqs (2.2) or (2.3) (Fig 8). Thus the described method gives the advantage that the calculation of the aerodynamic resistance of the rotor, can be performed without knowing the angle of incidence, which in practice means that no data of the rotor pitch is required. Thanks are given to Dr. of Technical Sciences M. L. Mil' for his advice. There are 8 figures and 1 Soviet reference.

SUBMITTED: May 20, 1958.

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ACC NR: AM6032642

(A)

Monograph

UR/

Mil', Mikhail Leont'yevich; Nekrasov, Andrey Vladimirovich; Braverman, Aleksandr Samoylovich; Grodtko, Lev Naumovich; Leykand, Matvey Abramovich

Helicopters; design and construction. v. 1: Aerodynamics (Vertolety; raschet i proyektirovaniye. t. 1: Aerodinamika). Moscow, Izd-vo "Mashinostroyeniye", 1966. 454 p. illus., biblio. Errata slip inserted. 4800 copies printed.

TOPIC TAGS: helicopter, aerodynamics, rotary wing aircraft, helicopter rotor, helicopter rotor blade, mechanical vibration, helicopter design

PURPOSE AND COVERAGE: This is Book One of a three-book series on helicopters. Book Two is on Vibrations and Dynamic Stability, and Book Three is on Planning. The book is intended for engineers of design bureaus, for scientific workers, and for fellows and instructors of higher educational institutions. It can also be of use to engineers of helicopter-building plants and students studying aerodynamics and helicopter stability. Many parts of the book will also be useful to flight and technical personnel in helicopter flying units. The book discusses the course of helicopter development, principles of their design, and their place among other aircraft not requiring airports. Various theories on rotors are covered, along with methods for determining their aerodynamic characteristics, including: the pulse theory of an ideal rotor and its application to the energetic method of calculation; the classic theory, in the case where numerical integration methods are used; the vortex theory; and methods of experimentally determining a rotor's characteristics during flight tests and in wind tunnels. There is a

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UDC: 629.135.4:533.6.001.12

ACC NR: AM6032642

detailed discussion of the various methods for the aerodynamic calculation of the helicopter and the theory of rotor flutter. Methods are explained for calculating flutter while hovering and in forward flight. Special attention is devoted to the calculation of friction in the hub's feathering hinges and to the transmission of blade vibrations through the automatic pitch control. Experimental research on flutter is described. The authors express gratitude to engineers F. L. Zarzhetskaya, R. L. Kreyer, and L. G. Rudnitskiy for their help in preparing the manuscript, and to R. A. Mikheyev for his review. There are 42 references, 35 of which are Soviet.

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SUB CODE: 01/ SUBM DATE: 04Mar66/ ORIG REF: 033/ OTH REF: 009/

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BRAVERMAN, B.L., inzh.

Filtration of nickel solutions. Mash.Bel. no.5:193-195 '58.
(MIRA 12:11)

(Nickel plating)

BRAVERMAN, B. Yu.

Using small radius circles for turning and working tower cranes.
Rats. i izobr. predl. v stroi. no. 110:6-7 '55. (MIRA 8:10)
(Cranes, derricks, etc.)

100-100000-100
MICHURINA, K.I., kandidat tekhnicheskikh nauk, dotsent; FRENKEL', Ya.I.,
inzhener; CHAYCHUK, A.Ya., inzhener; ROGOV, B.M., inzhener; BRAVERMAN,
D.A., inzhener.

Co-operative effort to increase the efficiency of the heat supply
system in machinery-manufacturing plants. Trudy LIEI no.7:80-96 '54.
(Heat engineering) (MLRA 9:9)

BELOGORSKAYA, N.I.; BLUDOV, M.I.; BRAVERMAN, E.M.; BULATOV, N.P.;
GALANIN, D.D.; GOL'DFARB, N.I.; YEVROPIN, G.P.; YEGOROV, A.L.
YENOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KAMANETSKIY, S.Ye.;
KRAUKLIS, V.V.; LISENKER, G.R.; MALOV, N.N.; MANOVETOVA, G.P.;
MENSHUTIN, N.F.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; FOKROVSKIY, A.A.;
POPOV, P.I.; RAYEVA, A.F.; REZNIKOV, L.I.; SOKOLOV, I.I.; YUSKOVICH,
V.F.; ZVENCHIK, Z.Ye.

Dmitrii Ivanovich Sakharov; obituary. Fiz.v shkole 22 no.1:109-
110 Ja-F '62. (MIRA 15:3)

(Sakharov, Dmitrii Ivanovich, 1889-1961)

SOV/136-58-6-7/21

AUTHORS: Shneyerov, M.S., Podgoyetskiy, M.L. and Braverman, E.M.
TITLE: Automation of Technological Processes in Titanium-magnesium
Production (Avtomatizatsiya tekhnologicheskikh protsessov
titano-magniyevogo proizvodstva)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 6, pp 38 - 41 (USSR)

ABSTRACT: For automating titanium and magnesium production, special apparatus capable of operating in corrosive surroundings, is required. The KB TsMA started work on the automation of titanium production in 1955 in collaboration with the VAMI (All-Union Aluminium-magnesium Institute), a continuous chain of processes being chosen initially. For the chlorination of titanium-containing briquettes in a shaft electric furnace (together with the chlorine-gas preparation section) the scheme adopted (Figure 1) provides for regulation of temperature at the furnace exit by controlling the chlorine flow, automatic charging by a time-switch controlled system, the maintenance of constant pressure conditions in the condensation system. To facilitate the last, an ultrasonic flowmeter (Figure 2) for the flow of pulp to the sprays has been developed and successfully tested. In the rectification column control is effected by automatic regulation of the level in the

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Automation of Technological Processes in Titanium-magnesium Production

reservoir at its base; standard equipment is used to regulate the rate of entry and temperature of the initial mixture. The KB TsMA on the basis of its own investigations and those of the VAMI have developed a system for the automatic control (Figure 3) of demountable types of reactors for the reduction of titanium tetrachloride with magnesium; a single, multiple-couple thermocouple with a special device ITM-205 is used to locate the maximal temperature up the reactor; the pneumatic signal from the type EPD-32 temperature controller goes to the KBTsMA-developed type RPD-327 pressure controller together with the signal from a pressure transducer measuring reactor pressure. The output from the RPD-327 goes to a type RK-27 valve (KB TsMA designed) and closes it if the temperature and pressure rise. Work is now proceeding on the automation of reduction in combined reactors. The author gives some quantitative estimates of the effects of automation in this industry.

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Automation of Technological Processes in Titanium-magnesium Production ^{SOV/136-58-6-7/21}

He gives a brief account of the type IV-439 and IV-440 instruments for measuring air humidity in the range 0.05 - 2 g/m³ and 2 - 15 g/m³, respectively (Figure 4). There are 4 figures.

ASSOCIATION: KB Tsvetmetavtomatika

Card 3/3

BRAYMAN, E.M.

- 28(1) PHASE I BOOK EXPLOITATION SOV/2702
- Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki. Seminar po pnevmogidravlicheskoy avtomatike. Ist. Moscow, 1957
- Sistemy, ustroystva i elementy pnevm- i gidrostatoetiki. (Sbornik) (Pneumatic and Hydraulic Circuits, Devices, and Elements in Automation) [Collection of Papers] Moscow, Izd-vo AN SSSR, 1959. 233 p. Errata slip inserted. 2,700 copies printed.
- Reep, Ed.: M. A. Arystman, Doctor of Technical Sciences, Professor; Ed. of Publishing House: A. A. Tal'; Tech. Ed.: T. P. Polyakova.
- PURPOSE: This collection of papers is intended for scientific research workers and engineers in the field of design and construction of pneumatic and hydraulic equipment and accessories for automation.
- COVERAGE: This collection contains papers read at the Seminar on Pneumatic and Hydraulic Circuits for Automation, May 28, 1957. The collection is divided into the following three groups: 1) new devices, pneumatic and hydraulic circuits; 2) pneumatic and hydraulic devices, including regulating units, transmitters and transducers, actuating mechanisms, special-purpose devices, and auxiliary equipment; and 3) elements of pneumatic and hydraulic devices for automation, such as controlled and permanent nozzles and diaphragms. No personalities are mentioned. References follow several of the papers.
- Podgorniy, M. L., and E.M. Brayman. [Moscow]. KSTsMA Three-Component Regulating Unit 50
- Dvornitskiy, V.M. [Moscow]. Small-size Hydraulic Regulating Unit, IAT AN SSSR 57
- Zasodetel'skiy, S.M., and V.A. Bukhadze. [Moscow]. Problems in Constructing Primary Instruments - Differential Pressure Transmitter With Pneumatic Force Compensation 61
- This paper is a theoretical discussion of differential transmitters dealing with their sensitivity, errors, and reliability.
- Kremennitskiy, Yu. V. [Moscow]. Electropneumatic Transducers, IAT AN SSSR 77
- Dalitskiy, V.M. [Moscow]. Static Characteristics of a Pneumatic Relay With Constant Current and Nozzle 86
- This paper discusses the static characteristics of a back-pressure type pneumatic relay with indicators that are not sensitive to minute gap changes.
- Zasodetel'skiy, S.M., and V.A. Bukhadze. [Moscow]. Differential Pressure Transmitters With Pneumatic Force Compensation (Review of Non-Soviet Designs) 91
- Temnykh, I. P. [Moscow]. General-purpose Hydraulic Power Servodrive 99
- Arkhangelskiy, A.P. Hydraulic Universal Variable-speed Transmission (UHL) 103
- This paper describes an axial-piston variable-speed transmission. Its technical specifications and fields of application are discussed.
- Babushkin, S. A. [Leningrad]. Equations for a Stabilizing System With the Hydraulic Actuator Connected With a Control Device by Hydraulic Main Lines 112
- Equations of the motion of the actuator piston and elements of the control device are given. Design examples are presented.

BRAVERMAN, E. M.

PHASE I BOOK EXPLOITATION

SOV/4403

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki

Avtomaticheskoye upravleniye; [sbornik rabot] (Automatic Control; Collected Works) [Moscow] Izd-vo AN SSSR [1960] 431 p. Errata slip inserted. 5,500 copies printed.

Ed.: Ya.Z. Tsypkin, Doctor of Technical Sciences, Professor; Ed. of Publishing House: Ye.N. Grigor'yev; Tech. Ed.: G.A. Astaf'yeva.

PURPOSE: This collection of reports is intended for scientists and engineers engaged in the study of automation.

COVERAGE: The collection contains reports presented at the 6th Conference of Young Scientists of the Institut avtomatiki i telemekhaniki AN SSSR (Institute of Automation and Telemechanics of the Academy of Sciences USSR) in January 1959. The collection covers a wide range of scientific and technical problems connected with automatic control. No personalities are mentioned. References accompany each report.

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Automatic Control (Cont.)

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PART I. AUTOMATIC CONTROL

Braverman, E.M. Use of the Method of Successive Approximations During the Adjustment of Industrial Controllers Based on Transients in a Closed-Loop System

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The author investigates a method of optimizing the control process of a closed-loop system which is described by a system of differential equations with given adjustment parameters. He solves the problem by applying the root-locus method and by studying the effects of a shifting of the characteristic roots on the transient behavior of the control system. He then applies this method to some specific types of industrial controllers. There are 3 references, all Soviet.

Butkovskiy, A.G. L.S. Pontryagin's Principle of a Maximum in Optimization Systems of Automatic Control With a Linear Actuating Signal

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The author proves the validity of L.S. Pontryagin's principle of a maximum for systems with linear control on the basis of which the optimal control can be determined when it is bound by a closed domain. For the sake of simplicity, the author examines time-optimization systems, but in general the principle of a maximum is valid for other criteria, i.e., the integral of the function of system coordinates and of actuating signals. There are 3 references, all Soviet.

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S/103/60/021/010/004/010
B012/B063

AUTHOR: Braverman, E. M. (Moscow)
TITLE: Some Problems Concerning the Design of Machines Classifying
Objects According to a Characteristic Not Given in Advance
PERIODICAL: Avtomatika i telemekhanika, 1960, Vol. 21, No. 10,
pp. 1375-1386

TEXT: The present paper deals with the design of two types of machines that classify objects according to a characteristic not given in advance. The operator of one type gives a signal when the machine has made a mistake. Such machines are called instructible (obuchayushchayasya) machines with stimulation. The other type forms "concepts" without requiring additional information from the operator. First, the author examines some conditions that guarantee the formation of "concepts" by such machines. Examples of limitations which can be imposed on the permissible classes of objects are given, and the design of machines forming "concepts" under such limitations is discussed. As the first example, the author describes the algorithm underlying "Pandemonium", a machine

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Some Problems Concerning the Design of Machines S/103/60/021/010/004/010
Classifying Objects According to a B012/B063
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designed by O. G. Selfridge (Ref. 1). Its mode of operation is shown in Fig. 1. For this problem it is assumed that previously only one space is known in which a classification is made. As the second example, the author considers the following case: There are several spaces, and the limitation imposed on the permissible classes of objects is such that at least one of these spaces has two regions with the same properties that were found for the first example. Next, the author describes the machine "Perceptron", suggested by F. Rosenblatt (Ref. 2), as an example of machines with stimulation. Its mode of operation is explained, and some theoretical problems of its working are discussed. Markov's stochastic process is mentioned. There are 6 figures and 2 non-Soviet references.

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BRAVERMAN, E.M. (Moskva)

New books and articles on physics, technology and astronomy.

Fiz.v shkole 22 no.1:99-104 Ja-F '62.

(MIRA 15:3)

(Bibliography—Science)

BRAVERMAN, E.M. (Moskva)

New books and articles. Fiz. v shkole 22 no.2:90-93 ^{Mr-Ap}
'62. (MIRA 15:11)
(Bibliography--Science) (Bibliography--Technology)